

What is claimed is:

1. A method for the precise reporting of errors in a flow of successive messages, the method comprising:

5 detecting a transmission error in a message in the flow; and
setting a deferred error flag in a state for the flow.

2. The method of claim 1, further comprising saving a sequence number, in a state for the flow, for the message having the transmission error.

10

3. The method of claim 2, the method further comprising processing the transmission error upon receiving an acknowledgement pertinent to an immediately preceding message.

15

4. The method of claim 3, wherein processing the transmission error upon receiving an acknowledgement pertinent to an immediately preceding message comprises reporting the transmission error.

20

5. The method of claim 3, wherein processing the transmission error upon receiving an acknowledgement pertinent to an immediately preceding message comprises reporting the immediately preceding message as a remote error.

25

6. The method of claim 4, wherein the acknowledgement is positive.

7. The method of claim 5, wherein the acknowledgement is negative.

30

8. A state machine for tracking the status of a flow of successive messages from a requestor, comprising a deferred error flag and a deferred error sequence number.

9. The state machine of claim 8, wherein when the requester detects a transmission error in a message:

the deferred error flag is set; and

the deferred error sequence number is saved.

5

10. The state machine of claim 9, wherein the deferred error flag remains set when the requester receives a positive acknowledgement for a preceding message.

10 11. A method for the precise reporting of errors in a flow, the flow including a first message and a second message, each message including at least one packet, the method comprising:

transmitting the first message;

detecting a transmission error in the second message;

15 deferring the reporting of the transmission error in the second message, wherein, the deferring includes writing a record of the transmission error in the second message to a state saved for the flow.

12. The method of claim 11, the method further comprising processing the transmission error in the second message upon receiving an acknowledgement pertinent to the first message.

13. The method of claim 12, wherein writing a record of the transmission error in the second message to a state saved for the flow comprises:

25 saving a sequence number of the packet in the state; and

setting a deferred error flag in the state.

14. The method of claim 12, wherein processing the transmission error in the second message upon receiving an acknowledgement pertinent to the first message comprises reporting the transmission error.

30

15. The method of claim 12, wherein processing the transmission error in the second message upon receiving an acknowledgement pertinent to the first message comprises reporting the first message as a remote error.

5 16. The method of claim 14, wherein the acknowledgement is positive.

17. The method of claim 15, wherein the acknowledgement is negative.

18. A method for reporting errors in a flow of successive messages
10 comprising:
detecting a transmission error in a message in the flow;
deferring reporting of the transmission error; and
reporting the transmission error upon receiving a positive
acknowledgement that completes a message in the flow that immediately
15 precedes the message having the transmission error.

19. The method of claim 18, wherein deferring reporting of the transmission error comprises:
saving a sequence number for the message causing the transmission
20 error in a state; and
setting a deferred error flag in the state.